

Clinical outcome using APACHE II score among patients admitted to the ICUs of a tertiary care hospital

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Abstract

Introduction: Due to very less number of intensive care units in the health sector, there is global burden on ICUs. The APACHE II scoring system is used to make clinically, ethically, and economically sound decision in critical care area. This study was carried out with the objective to determine APACHE II score for prediction and comparison of patient clinical outcomes. **Methods:** A descriptive survey study was done among 250 patients admitted in ICUs of a tertiary-care hospital of Udupi District. Data was collected for the period of three months from January to March 2014. Descriptive statistics, t-test, and receiver operative characteristics (ROC) curve were used to explain the findings.

Results: A total of 70.8% of patients were male with the mean age of 53.14 + 2 years. The neurological disorders accounted for 32% of total cases and 42% of mortality. The APACHE II score ranged from 3-40 (mean=18.84). The findings showed significant difference between the score of APACHE II among the dead and those who have survived (t -value =7.692, p -value < .001). The calculation of area under the curve (AUROC) for APACHE II is 0.785 (p value .001). APACHE II was 75.2% sensitive and 64.8% specific for the score of 18. The APACHE II score was fit (χ^2 = 7.31, p value = .503).

Conclusion: APACHE II score has good calibration and portrays the difference between mortality and survival rates.

Key word: APACHE II, ICU patients, patient clinical outcome